

METHOD FOR A PATTERNED ETCH USING A HOLOGRAPHIC MASK

ABSTRACT OF THE DISCLOSURE

A method of producing an electrode for use in the manufacture of electrolytic capacitors for implantable cardioverter defibrillators comprises first coating the foil with a photoresist, second, applying a holographic image to the photoresist, third, removing a portion of the photoresist to expose a portion of the foil and create a pattern of photoresist on the foil and etching the foil. Alternatively, the method comprises applying an oxide or metal layer to the exposed foil surface, removing the pattern of photoresist to create a pattern of oxide or metal and etching the foil. The patterns of photoresist, oxide or metal all retard or prevent etching of the foil where the foil surface is covered. This results in a pattern of unetched foil with the remaining area being heavily etched. The resulting patterns stop crack propagation through the etched portions to yield foils with high gain and improved strength.

<SKGF_DC1>146195v1